METHOD AND SYSTEM FOR REDUCING FALSE DETECTIONS OF ACCESS SIGNALS

ABSTRACT OF THE DISCLOSURE

A base transceiver station includes a demodulator that determines a time of arrival of an access signal. Access signals that do not obtain a time of arrival are discarded. Upon obtaining a time of arrival, the access signal is processed by an equalizer that corrects multi-path fading in the received access signal. Upon equalization, a training sequence of bits in the access signal is compared to a reference sequence of bits. A burst confidence metric is obtained in the comparison by summing the number of matching bits. The burst confidence metric is compared to a threshold number. The access signal is discarded if the burst confidence metric is less than the threshold number. A decoder performs a parity check on access signals that have a burst confidence metric that exceeds the threshold number. The access signal is discarded if the parity check fails. Upon passing the parity check, the access signal is re-encoded and compared to its received version. If a number of bit errors from the comparison exceeds a bit error threshold, the access signal is discarded. Otherwise, resources are allocated associated with the access signals